

WHAT IS CLAIMED IS:

1. A method of assembling a bearing device comprising:
a raceway on an outer peripheral surface on one axial side thereof;

5 an inner shaft having a flange on the outer peripheral surface further toward the axial one side than the raceway;

an outer ring inserted with respect to the inner shaft from an axial other side thereof and having a raceway facing the raceway on an inner peripheral surface thereof at the
10 insertion position; and

a plurality of tapered rollers arranged under free rotation between the raceways of the inner shaft and the outer ring, including:

a first step in which an annular seal is attached to the
15 outer peripheral surface of the inner shaft on the flange side thereof, and the tapered rollers and a retainer for the tapered rollers are arranged in the raceway of the inner shaft so that an inner shaft assembled body comprising the annular seal, the tapered rollers and the retainer is formed;

20 a second step in which an annular spacer is arranged between the flange and the annular seal so as to support the annular seal and in such a manner as capable of being circumferentially split and removed;

25 a third step in which the outer ring is inserted with respect to the inner shaft from the axial other side via the annular seal until the outer ring abuts the flange of the inner shaft; and

a fourth step in which the annular spacer is split and removed from the bearing device.

30 2. The method of assembling a bearing device according to Claim 1, wherein

an inner diameter of the annular seal is smaller than a circumscribed circle diameter of the first tapered rollers.

3. The method of assembling a bearing device according to Claim 1, wherein

the tapered rollers and the retainer are arranged in the raceway of the inner shaft in a state where the inner shaft is axially perpendicular and the flange thereof is located on an upper side, and

the outer ring is attached to the inner ring in a state where the inner shaft is axially perpendicular and the flange thereof is located on a lower side.

4. The method of assembling a bearing device according to Claim 1, wherein

an axial thickness of a radially inner-side part of the annular spacer is larger than an axial thickness of a radially outer-side part thereof, and a flange-side end surface of the annular spacer has a flat-surface shape,

the flange-side end surface of the annular spacer is facing alongside a side surface of the flange,

the annular seal is supported by the radially inner-side part of the annular spacer, and

the outer ring is supported by the radially outer-side part of the annular seal.

5. The method of assembling a bearing device according to Claim 4, wherein

a difference between the axial thickness of the radially inner-diameter part and the axial thickness of the radially outer-diameter part is set to a design value of an axial estrangement distance between the end part of the outer ring and the annular seal.